

Job Outlook

Employment of dentists is expected to grow slower than the average for all occupations through 2008. Although employment growth will provide some job opportunities, most jobs will result from the need to replace the large number of dentists projected to retire. Job prospects should be good if the number of dental school graduates does not grow significantly, thus keeping the supply of newly qualified dentists near current levels.

Demand for dental care should grow substantially through 2008. As members of the baby-boom generation advance into middle age, a large number will need maintenance on complicated dental work, such as bridges. In addition, elderly people are more likely to retain their teeth than were their predecessors, so they will require much more care than in the past. The younger generation will continue to need preventive check-ups despite treatments such as fluoridation of the water supply, which decreases the incidence of tooth decay.

Dental care will focus more on prevention, including teaching people how to care better for their teeth. Dentists will increasingly provide care that is aimed at preventing tooth loss—rather than just providing treatments, such as fillings. Improvements in dental technology will also allow dentists to provide more effective and less painful treatment to their patients.

However, the employment of dentists is not expected to grow as rapidly as the demand for dental services. As their practices expand, dentists are likely to hire more dental hygienists and dental assistants to handle routine services.

Earnings

Median annual earnings of salaried dentists were \$110,160 in 1998. Earnings vary according to number of years in practice, location, hours worked, and specialty.

Self-employed dentists in private practice tend to earn more than salaried dentists. A relatively large proportion of dentists is self-employed. Like other business owners, these dentists must provide their own health insurance, life insurance, and retirement benefits.

Related Occupations

Dentists examine, diagnose, prevent, and treat diseases and abnormalities. So do clinical psychologists, optometrists, physicians, chiropractors, veterinarians, and podiatrists.

Sources of Additional Information

For information on dentistry as a career and a list of accredited dental schools, contact:

✦ American Dental Association, Commission on Dental Accreditation, 211 E. Chicago Ave., Chicago, IL 60611. Internet: <http://www.ada.org>

✦ American Association of Dental Schools, 1625 Massachusetts Ave. NW, Washington, DC 20036. Internet: <http://www.aads.jhu.edu>

The American Dental Association will also furnish a list of State boards of dental examiners. Persons interested in practicing dentistry should obtain the requirements for licensure from the board of dental examiners of the State in which they plan to work.

Prospective dental students should contact the office of student financial aid at the schools to which they apply, for information on scholarships, grants, and loans, including Federal financial aid.

Optometrists

(O*NET 32108)

Significant Points

- All States and the District of Columbia require that optometrists be licensed, which requires a Doctor of Optometry degree from an accredited optometry school and passing both a written and a clinical State board examination.

- Employment growth will be fastest in retail optical stores and outpatient clinics.
- Optometrists usually remain in practice until they retire, so job openings arising from replacement needs are low.

Nature of the Work

Over half of the people in the United States wear glasses or contact lenses. Optometrists (doctors of optometry, also known as O.D.'s) provide most primary vision care.

Optometrists examine people's eyes to diagnose vision problems and eye diseases. They use instruments and observation to examine eye health and to test patients' visual acuity, depth and color perception, and their ability to focus and coordinate the eyes. They analyze test results and develop a treatment plan. Optometrists prescribe eyeglasses and contact lenses, and provide vision therapy and low vision rehabilitation. They administer drugs to patients to aid in the diagnosis of eye vision problems and prescribe drugs to treat some eye diseases. Optometrists often provide pre- and post-operative care to cataract, laser vision correction, and other eye surgery patients. They also diagnose conditions due to systemic diseases such as diabetes and high blood pressure, and refer patients to other health practitioners as needed.

Optometrists should not be confused with ophthalmologists or dispensing opticians. Ophthalmologists are physicians who perform eye surgery, and diagnose and treat eye diseases and injuries. Like optometrists, they also examine eyes and prescribe eyeglasses and contact lenses. Dispensing opticians fit and adjust eyeglasses and in some States may fit contact lenses according to prescriptions written by ophthalmologists or optometrists. (See statements on physicians and dispensing opticians elsewhere in the *Handbook*.)

Most optometrists are in general practice. Some specialize in work with the elderly, children, or partially sighted persons who need specialized visual devices. Others develop and implement ways to protect workers' eyes from on-the-job strain or injury. Some specialize in contact lenses, sports vision, or vision therapy. A few teach optometry, perform research, or consult.

Most optometrists are private practitioners who also handle the business aspects of running an office, such as developing a patient base, hiring employees, keeping records, and ordering equipment and supplies. Optometrists who operate franchise optical stores may also have some of these duties.

Working Conditions

Optometrists work in places—usually their own offices—which are clean, well lighted, and comfortable. Most full-time optometrists work about 40 hours a week. Many work Saturdays and evenings



Optometrists diagnose vision problems and eye diseases.

to suit the needs of patients. Emergency calls, once uncommon, have increased with the passage of therapeutic drug laws expanding optometrists' ability to prescribe medications.

Employment

Optometrists held about 38,000 jobs in 1998. The number of jobs is greater than the number of practicing optometrists because some optometrists hold two or more jobs. For example, an optometrist may have a private practice, but also work in another practice, clinic, or vision care center. According to the American Optometric Association, about two-thirds of practicing optometrists are in private practice.

Although many optometrists practice alone, a growing number are in a partnership or group practice. Some optometrists work as salaried employees of other optometrists or of ophthalmologists, hospitals, health maintenance organizations (HMO's), or retail optical stores. A small number of optometrists are consultants for industrial safety programs, insurance companies, manufacturers of ophthalmic products, HMO's, and others.

Training, Other Qualifications, and Advancement

All States and the District of Columbia require that optometrists be licensed. Applicants for a license must have a Doctor of Optometry degree from an accredited optometry school and pass both a written and a clinical State board examination. In many States, applicants can substitute the examinations of the National Board of Examiners in Optometry, usually taken during the student's academic career, for part or all of the written examination. Licenses are renewed every 1 to 3 years and in all States, continuing education credits are needed for renewal.

The Doctor of Optometry degree requires completion of a 4-year program at an accredited optometry school preceded by at least 3 years of preoptometric study at an accredited college or university (most optometry students hold a bachelor's degree or higher). In 1999, 17 U.S. schools and colleges of optometry held an accredited status with the Council on Optometric Education of the American Optometric Association.

Requirements for admission to schools of optometry include courses in English, mathematics, physics, chemistry, and biology. A few schools require or recommend courses in psychology, history, sociology, speech, or business. Applicants must take the Optometry Admissions Test, which measures academic ability and scientific comprehension. Most applicants take the test after their sophomore or junior year. Competition for admission is keen.

Optometry programs include classroom and laboratory study of health and visual sciences, as well as clinical training in the diagnosis and treatment of eye disorders. Included are courses in pharmacology, optics, vision science, biochemistry, and systemic disease.

Business ability, self-discipline, and the ability to deal tactfully with patients are important for success. The work of optometrists requires attention to detail and good manual dexterity.

Optometrists wishing to teach or do research may study for a master's or Ph.D. degree in visual science, physiological optics, neurophysiology, public health, health administration, health information and communication, or health education. One-year postgraduate clinical residency programs are available for optometrists who wish to specialize in any of the following: family practice optometry, pediatric optometry, geriatric optometry, vision therapy, contact lenses, hospital based optometry, primary care optometry, or ocular disease.

Job Outlook

Employment of optometrists is expected to grow about as fast as the average for all occupations through 2008 in response to the vision care needs of a growing and aging population. As baby boomers age, they will be more likely to visit optometrists and ophthalmologists because of the onset of vision problems in middle age, including computer-related vision problems. The demand for optometric services will also increase because of growth in the oldest age group, with their increased likelihood of cataracts, glaucoma, diabetes, and

hypertension. Employment of optometrists will also grow due to greater recognition of the importance of vision care, rising personal incomes, and growth in employee vision care plans. Employment growth will be fastest in retail optical stores and outpatient clinics.

Employment of optometrists would grow more rapidly were it not for anticipated productivity gains that will allow each optometrist to see more patients. These gains will result from greater use of optometric assistants and other support personnel, and the introduction of new equipment and procedures. New surgical procedures using lasers are available that can correct some vision problems, but they remain expensive.

In addition to growth, the need to replace optometrists who leave the occupation will create employment opportunities. Relatively few opportunities from this source are expected, however, because most optometrists continue to practice until they retire; few transfer to other occupations.

Earnings

Median annual earnings of salaried optometrists were \$68,500 in 1998. The middle 50 percent earned between \$43,750 and \$93,700 a year. The lowest 10 percent earned less than \$24,820 and the highest 10 percent earned more than \$123,770 a year. Salaried optometrists tend to earn more initially than do optometrists who set up their own independent practice. In the long run, those in private practice usually earn more.

According to the American Optometric Association, new optometry graduates in their first year of practice earned median net incomes of \$55,000 in 1998. Overall, optometrists earned median net incomes of \$92,000.

Related Occupations

Workers in other occupations who apply scientific knowledge to prevent, diagnose, and treat disorders and injuries are chiropractors, dentists, physicians, podiatrists, veterinarians, speech-language pathologists, and audiologists.

Sources of Additional Information

For information on optometry as a career and a listing of accredited optometric educational institutions, as well as required preoptometry courses, contact:

✦ American Optometric Association, Educational Services, 243 North Lindbergh Blvd., St. Louis, MO 63141-7881.

Internet: <http://www.aoanet.org>

✦ Association of Schools and Colleges of Optometry, 6110 Executive Blvd., Suite 510, Rockville, MD 20852. Internet: <http://www.opted.org>

The Board of Optometry in each State can supply information on licensing requirements.

For information on specific admission requirements and sources of financial aid, contact the admissions officer of individual optometry schools.

Physicians

(O*NET 32102A, 32102B, 32102E, 32102F, 32102J, and 32102U)

Significant Points

- Physicians are much more likely to work as salaried employees of group medical practices, clinics, or health care networks than in the past.
- Formal education and training requirements are among the longest of any occupation, but earnings are among the highest.

Nature of the Work

Physicians serve a fundamental role in our society and have an effect upon all our lives. They diagnose illnesses and prescribe and